

Topsham Maine
Aquifer Protection Overlay District
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Town Planning Office
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Zoning Bylaw
Adopted: 1986
Revised: 1988

SECTION 11-106: ZONE REGULATIONS

6. AQUIFER PROTECTION OVERLAY DISTRICT

A. Purpose

The preservation of pure, clean supplies of groundwater is declared to be public purpose. The purpose of this section is to promote the 'preservation and wise utilization of ground water through the control of land uses and activities which might otherwise degrade or destroy the use of aquifers for public and private drinking water supplies.

B. Establishment of Aquifer Protection Districts

Sand and gravel aquifers have been mapped by the Maine Geological Service which indicate significant ground water aquifers and recharge areas. District boundaries may be verified or amended or additional districts added by the submission of new or additional geological data by either the staff of the M.G.S. or registered professional geologist.

C. Land Use Restrictions

All land uses except the following are prohibited: Single family dwellings; multifamily dwellings; agriculture; animal husbandry; public utility service lines; forest management; educational facilities; retail and service businesses which do not use chemical processes or require bulk storage of hazardous materials; and accessory uses except those using chemical processes.

D. Dimensional Standards

The dimensional standards for residential uses shall be based upon the development contributing no more than 25% of the Public Drinking Water Standards for concentrations of listed chemicals into the defined development area based upon average annual precipitation infiltration. In the event that new technologies may reduce one or more chemical components, the concentration of the next highest shall control the density of the development. Calculations for nitrate contributions shall be based upon 5 lbs. per person at 3.5 persons per household and 1.8 lbs. per 1,000 sq. ft. of fertilized lawn and garden area. The nitrogen loading formula is lbs. nitrogen multiplied by 454,000 mg/lb divided by infiltration in gals./yr multiplied by 3.8 liters/gal. is

equal to ppm concentration. A five-acre lot with 15,000 sq. ft of lawn will not exceed 25% of the P.D.W.5. Single family lots shall be 5 acres unless otherwise documented to contribute less than 25% of the standard. Animal nitrate contributions shall not exceed the following area requirements: Dairy Cattle - 1 per acre; Beef Cattle - 3 per acre; Swine - 4 per acre; Sheep - 8 per acre; Goats - 12 per acre; Horses - 3 per acre; Chickens - 139 per acre; and Dogs - 24 per acre.

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6. AQUIFER PROTECTION OVERLAY DISTRICT (Cont'd)

E. Runoff and Drainage

Provision shall be made for on-site recharge of stormwater runoff from impervious surfaces unless the Planning Board determines that either recharge is infeasible because of site conditions or is undesirable because of uncontrollable risks to water quality from such recharge. Recharge shall be by surface infiltration through vegetative surface unless otherwise approved by the Planning Board. Recharge quantity shall not be significantly reduced from predevelopment levels. Dry wells shall be used for control of surface runoff only if other methods of control are infeasible. Dry wells shall not be used for disposal of any leachable materials or hazardous materials and shall not be connected to floor drains. Where dry wells or leaching basins are used, they shall be preceded by oil, grease and sediment traps.

F. Safeguard

Provision shall be made to protect against toxic or hazardous materials discharge or loss resulting from erosion, accidental drainage, spillage or vandalism through measures such as spill control provisions and secured storage areas for toxic or hazardous materials. Handling and storage of toxic and hazardous materials shall meet performance standards established by the Maine Department of Environmental Protection.

All retail and service businesses shall be connected to the public sewer system in accordance with the criteria set forth by the Topsham Sewer District.

Monitoring wells shall be required for subdivisions of eight (8) or more lots and any use deemed by the Planning Board to be an actual or potential source of pollution. The number, location and depth of monitoring wells shall be determined by a hydro-geologist approved by the Town and shall be installed and sampled in accordance with the recommendations of the hydrogeologist. Monitoring wells shall be installed on the property at the expense of the owner or occupier. The Town shall be provided with all monitoring well information and shall be granted access to all monitoring wells.